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(54) **WIRELESSLY POWERED DEVICES FOR MINIMALLY INVASIVE SURGERY**

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(57) **ABSTRACT**

In various examples, a system for wirelessly transmitting power using resonant magnetic field power transfer includes a device including at least one component to be wirelessly powered. The device includes an elongate shaft and a capture element including a capture coil. A source element for wirelessly supplying power to the device includes a source coil disposed around an opening. The opening is sized to allow the elongate shaft of the device to fit therein. The source is located proximate a surgical access point, wherein, with insertion of the elongate shaft within the opening of the source for surgical access, the capture coil is disposed sufficiently proximate the source coil to allow power to be wirelessly transmitted from the source coil to the capture coil to power the at least one component of the device.

20 Claims, 14 Drawing Sheets